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ABSTRACT

Preschool children can benefit by working with microcomputers. Thinking skills are enhanced by software games that focus on logic, memory, problem solving, and pattern recognition. Counting, sequencing, and matching games develop mathematics skills, and word games focusing on basic letter symbol and word recognition develop language skills. Creativity is enhanced through music, art, and design. Two types of software used in early childhood education are computer graphics programs, such as Logo and Delta Drawings, and computer assisted instruction programs, such as Juggles, Rainbow, and Bumble Games. A program should be fun, easy, playful, and appealing. It should use story elements that children can identify with, color graphics, animation, and sound. Although formal instruction is unnecessary for such young children, adult supervision is usually required, and this may be a drawback in schools with limited funds or personnel. An important factor in the success of such a program is the organization of the instructional environment, which might include setting up a quiet area, having a set of rules regarding use, and decorating the area with instructional charts. (4 references). (MES)

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MICROCOMPUTERS and PRESCHOOLERS

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Computers are the trend in America. They can be found in businesses, homes, and schools. This trend is beginning to reach younger and younger children. It has been "estimated 25% of licenced preschools across the country"[1] have microcomputers at their centers. Even though the future of computers in nursery schools is uncertain, it is clear that preschoolers today will probably encounter computers daily in their adult lives.

Children are naturally motivated to explore, manipulate and master activities and materials. They actively engage in tasks which are meaningful to them, such as building with blocks, molding play dough and engaging in dramatic play alone or with others. Computers in the preschool can be a learning tool. It is fundamentally different from tradition materials found in a nursery school or day-care center. This difference can be attributed to the fact that the microcomputer is a symbolic machine, that uses symbols. Although computers are abstract, prechoolers can benefit from using them.

Children can learn specific skills from using a computer. Thinking, math, language and creativity[2] are some of the skills that are developed by using the computer. Thinking skills are enhanced by software games that focus on logic, memory, problem solving and pattern recognition. Counting, sequencing, and matching are some examples of software games that focus on math. Word games that focus on basic letter symbol and word recognition develop language skills. Creativity is enhanced through music, art, and design.[3] An excellant type of program to use to

develop such skills is computer graphics.

The responsive nature of computer graphics programs in which the child is in control of the outcome makes them a valuable open-ended activity, similar to blocks, finger and easel painting, clay and dramatic play, mainstays of a good early childhood education program.[4] By pressing the keys on the key board, children are able to create drawings on the screen. Children are able to formulate their own programs. The child is in control when working with computer graphics. Two popular programs for this use are Logo and Delta Drawings.

Another type of program that is utilized in early childhood education is Computer Assisted Instructor (CAI). It uses a drill and practice technique. The computer provides information to the child. The child in turn responds to the informatiom shown on the screen. Immediate feedback on right and wrong answers is then provided for the child. These programs are structured in such a way as to provide little or no creativity. In a sense it is like a traditional classroom where the child responds to the teacher (computer). The child must do what the program instructs him or her to do.[5] Some popular CAI programs are Juggles, Rainbow and Bumble Games.

When choosing software it is important to look for several charateristics. A program should be fun, easy, playful, and appealing, stories that kids can identify with and it should have high resolution color grphics, animation and sound.[6] Programs that move too fast, belittle children for errors with noise or snide

remarks and require a single right answer should be avoided.[7] It is also very important to decide what specific goals are set and what the program should provide for the child or children who will be using it.

There are other considerations to think of when providing computers for preschools. Aside from being an expensive investment preschoolers useing computers in the classroom need adult supervision, at least initially. Children need explanations and quidance when learning to use a computer and when experiencing new programs. Therefore the adult monitoring the computer need to have some knowledge about the computer and the programs. This factor may be a setback in some schools due to limited funds and personnel.

When using a computer in a preschool it is important to recognize and build upon its unique characteristics. Microcomputers cannot replace real experiences with concrete objects, which children seem to need. "Perhaps, however, there is a place for a medium which can transcend concrete limitations and extend everyday experience, even with young children."[8] An important factor in the many possibilities of computers in the classroom is the organization of the instructional environment. Setting up a quiet area and having a set of rules as to how many children can use the computer at one time are good structuring techniques. Also, decorating the area with instructional charts on how to use the computer are reminders to children and they lessen the number of questions to the teacher. These are suggestions to help in

organizing and setting up a computer in a preschool classroom, but the actual set-up depends on the children and teacher within a specific school.

Although the trend of microcomputers in perschools is unclear, computers in general are becoming popular everywhere. With proper guidance preschool children can benefit from using computers. Formal instruction is unnecessary for such young children. It is more appropriate for preschoolers to have a microcomputer available as an option, just like blocks, puzzles or playdough.

FOOTNOTES

1 Kerry Olson, "The Microcomputer as a Learning Material in Early Childhood Setting," The Beacon, November 1985, p.7.

2 Kathryn Stechert, "How Much can a Preschooler Learn from a Computer," Better Homes and Gardens, September 1984, p.72,74.

3 Stechert, p.74.

4 Janet Fowle McLanahan," Software for Young children," Day Care and Early Eduction, Winter 1984, p.26.

5 McLanahan, p.28.

6 Stechert, p.74.

7 Stechert, p.74.

8 Olsen, p.8.

BIBLIOGRAPHY

Hassett, James. "Computers in the Classroom." Psychology Today, Septemver 1984, pp. 22-27.

McLanahan, Janet Fowle. "Software for Young Children." Day Care and Early Eduction, Winter 1984, pp. 26-29.

Olson, Kerry. "The Microcomputer as a Learning Material in Early Childhood Settings." The Beacon, November 1985, pp.7-9.

Stechert, Kathryn. "How Much Can a Preschooler Learn from a Computer?" Better Homes and Gardens, September 1984,pp.72-74.